

CLAIMS

1. An electronic steering wheel lock for motor vehicles, which can be unlocked by means of an electronic key and has a locking member (3) for locking the motor vehicle steering shaft (1) against rotation and also has a rotor (5) that is rotatable out of an initial position and back into the initial position for moving the locking member (3) back and forth between a steering shaft locking position and a steering shaft releasing position in a stator (2), wherein the rotor (5) cannot be rotated out of the initial position, so that the locking member (3) moves into the steering shaft releasing position, until an electromagnet (7), disposed in the stator (2) coaxially with the rotor (5), has been energized with the aid of the electronic key, in order to unlock the rotor (5), which in its initial position, under the influence of a spring load (22), can be coupled positively with the stator (2) and is axially displaceable in the stator (2) by means of the electromagnet (7) against the action of the spring load (22) in order to release the mutual engagement of the rotor (5) and the stator (2), characterized in that the rotor (5) has at least one coupling dog (23), which cooperates with a coupling slot (24) of the stator (2), which slot is defined, on the side toward which the rotor (5) is rotatable out of its initial position by an inertial element (26) which is displaceable in the stator (2) together with the rotor (5) against the action of a spring load when the rotor (5), as a consequence of a blow on the stator (2), is axially displaced against the action of its spring load.

2. The steering wheel lock according to claim 1, characterized in that the two side faces (33, 34), extending parallel to one another and oriented toward one another, of the coupling dog (23) of the rotor (5) and of the inertial element (26) of the stator (2) extend obliquely to the longitudinal axis (25) of the rotor, so that when the side faces (33, 34) are pressed against one another, the rotor (5) and the inertial element (26) are loaded axially toward one another.

3. The steering wheel lock according to claim 1 or 2, characterized in that the coupling dog (23) of the rotor (5) protrudes axially from the rotor (5), and the coupling slot (24) of the stator (2) extends parallel to the longitudinal axis (25) of the rotor.

4. The steering wheel lock according to claim 1, 2 or 3, characterized in that the inertial element (26) of the stator (2) is loaded into its rest position by a helical compression spring (27), which is supported on one end on the inertial element (26) and on the other end on the stator (2).

5. The steering wheel lock according to any one of the foregoing claims, characterized in that the rotor (5) has two diametrically opposed coupling dogs (23), which each cooperate with a respective coupling slot (24) of the stator (2), which slot is defined laterally by an inertial element (26).

6. An electronic ignition and starting switch for motor vehicles, which can be unlocked by means of an electronic key and has a rotor, which for switching on and off, in particular the ignition system and the starter of the motor vehicle, is rotatable in a stator out of an initial position into various switching positions and back into the initial position, wherein the rotor cannot be rotated into the switching positions until an electromagnet, disposed in the stator coaxially with the rotor, has been excited with the aid of the electronic key in order to unlock the rotor, which in its initial position, under the influence of a spring load, can be coupled positively with the stator, and is axially displaceable in the stator by means of the electromagnet against the action of the spring load, in order to release the mutual engagement of the rotor and the stator, characterized in that the rotor (5) has at least one coupling dog (23), which cooperates with a coupling slot (24) of the stator (2), which slot is defined, on the side toward which the rotor (5) is rotatable out of its initial position, by an inertial element (26) which is displaceable in the stator (2) together with the rotor (5) against the action of a spring load when the rotor (5), as a consequence of a blow on the stator (2), is axially displaced against the action of its spring load.

7. The ignition and starting switch according to claim 6, characterized in that the two side faces (33, 34), extending parallel to one another and oriented toward one another, of the coupling dog (23) of the rotor (5) and of the inertial element (26) of the stator (2) extend obliquely to the longitudinal axis (25) of the rotor, so that when the side faces (33, 34) are pressed against one another, the rotor (5) and the inertial element (26) are loaded axially toward one another.

8. The ignition and starting switch according to claim 6 or 7, characterized in that the coupling dog (23) of the rotor (5) protrudes axially from the rotor (5), and the coupling slot (24) of the stator (2) extends parallel to the longitudinal axis (25) of the rotor.

9. The ignition and starting switch according to claim 6, 7 or 8, characterized in that the inertial element (26) of the stator (2) is loaded into its rest position by a helical compression spring (27), which is supported on one end on the inertial element (26) and on the other end on the stator (2).

10. The ignition and starting switch according to any one of claims 6 through 9, characterized in that the rotor (5) has two diametrically opposed coupling dogs (23), which each cooperate with a respective coupling slot (24) of the stator (2), which slot is defined laterally by an inertial element (26).